

L. D. DEWEY, 2D.

FEED COOKER.

APPLICATION FILED JAN. 16, 1909.

925,463.

Patented June 22, 1909.

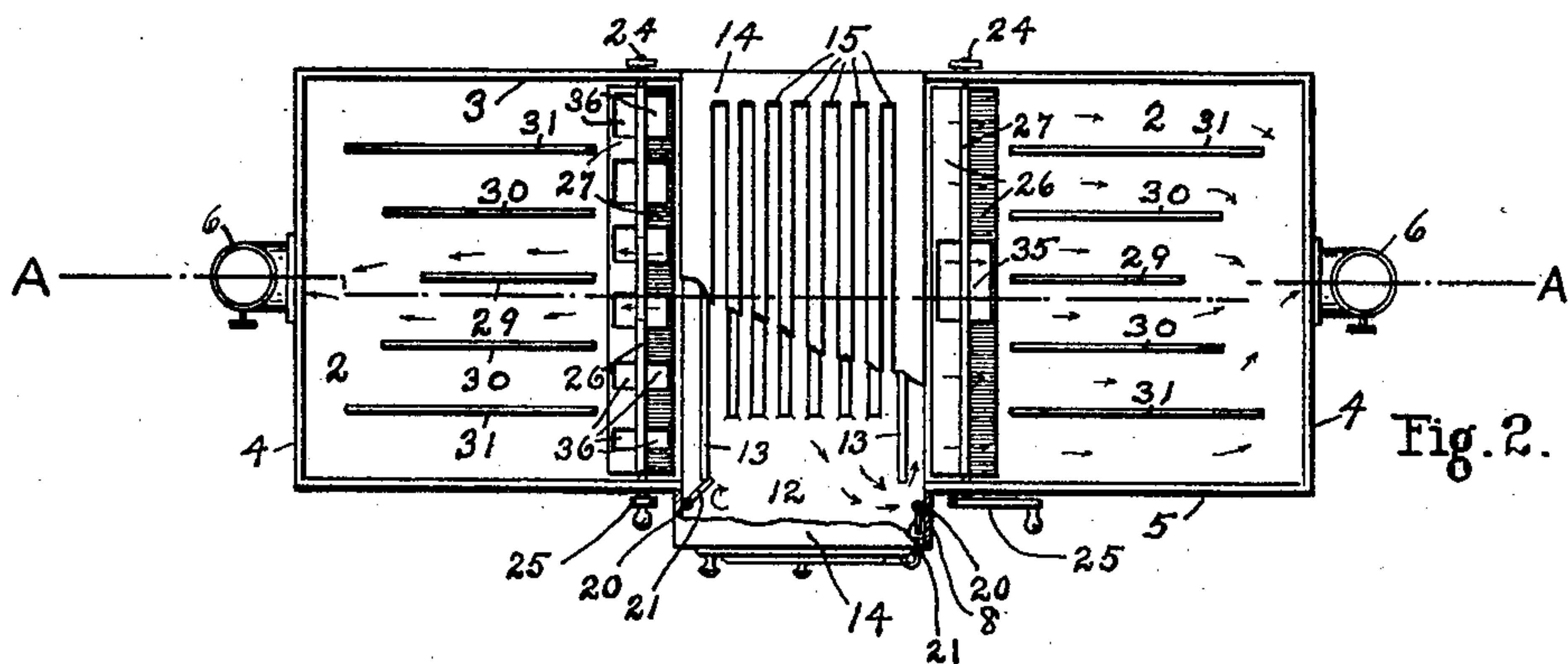


Fig. 1.

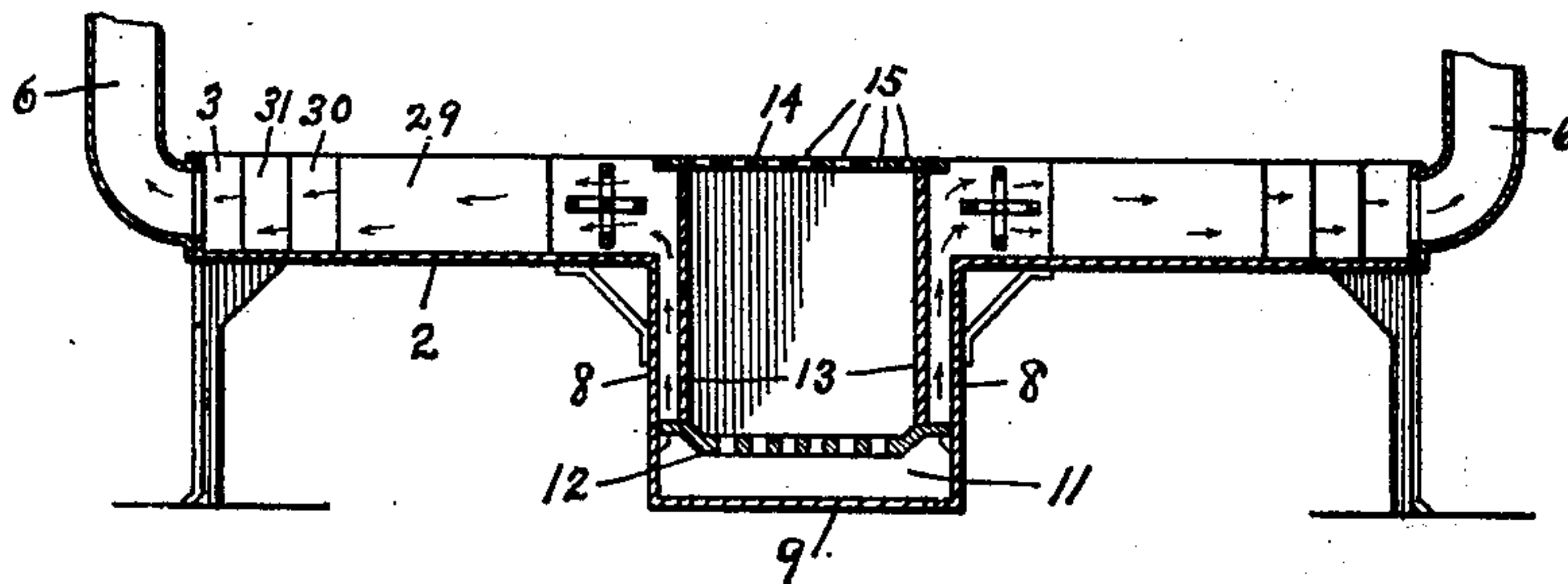
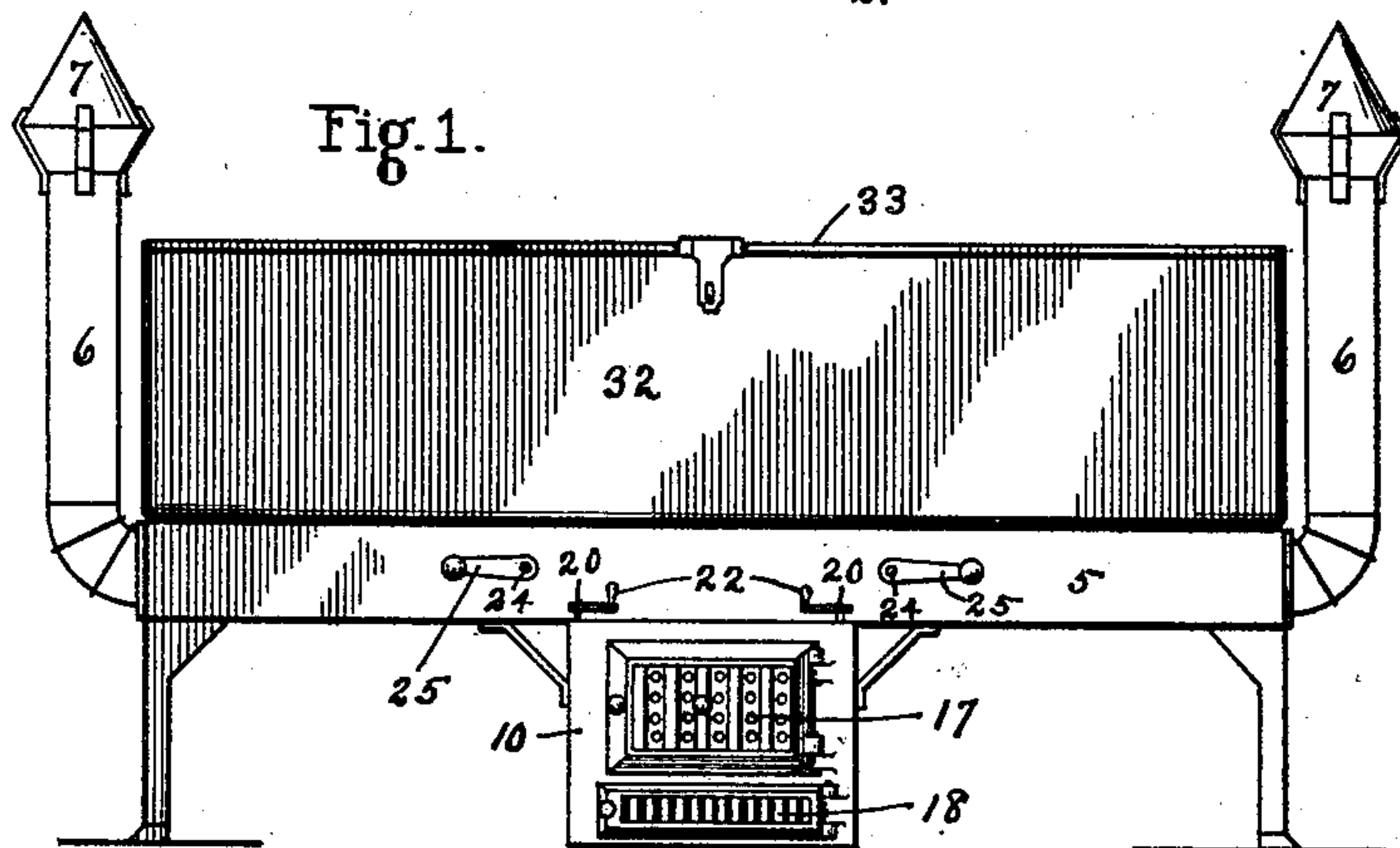


Fig. 3.

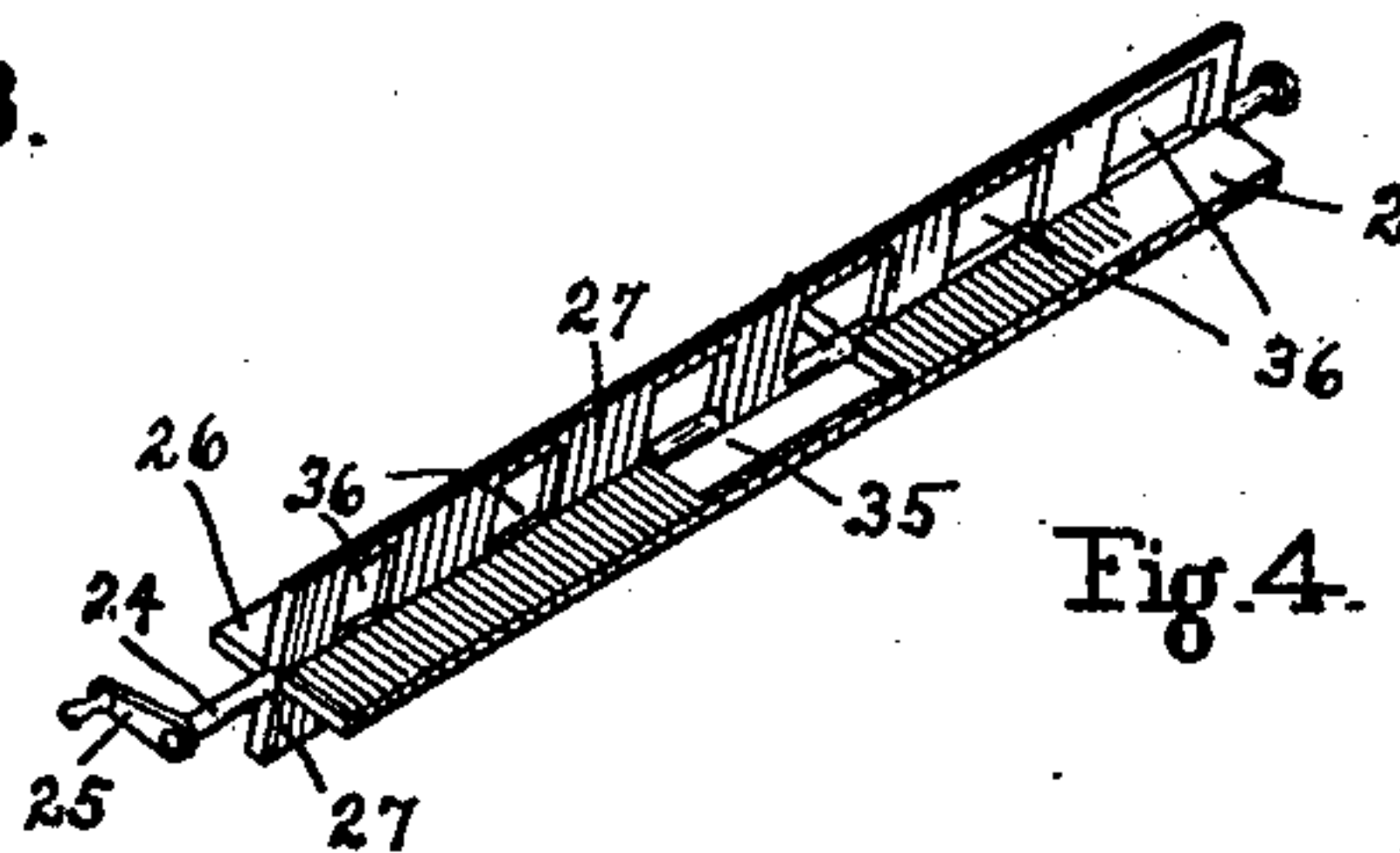


Fig. 4.

Witnesses:

*W. H. Perrault*

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Inventor.

*L. D. Dewey, 2d*  
By his Attorney  
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# UNITED STATES PATENT OFFICE.

LORENZO DOW DEWEY, 2D, OF DETROIT, MICHIGAN.

## FEED-COOKER.

No. 925,463.

Specification of Letters Patent.

Patented June 22, 1909.

Application filed January 16, 1909. Serial No. 472,651.

*To all whom it may concern:*

Be it known that I, LORENZO DOW DEWEY, 2d, a citizen of the United States, and a resident of Detroit, in the county of Wayne and State of Michigan, have invented a new and Improved Feed-Cooker, of which the following is a specification.

My invention relates to means for cooking feed for stock and for heating the contents of large tanks, and the object of my improvements is to provide a heater which shall utilize a maximum of the heat units in the fuel and at the same time be simple, and easily manipulated and constructed.

In the accompanying drawings Figure 1 is an elevation of my improved device. Fig. 2 is a plan of the same with the tank removed and a portion of the plate over the furnace broken away. Fig. 3 is a vertical cross section on the line A—A of Fig. 2. Fig. 4 is a perspective view of a heat distributor.

Similar reference characters refer to like parts throughout the several views.

This cooking device comprises generally a body 1 in the form of a flat pan provided with a bottom 2, back 3, ends 4, and front 5. Flues 6 connect to the ends 4 and may be provided with hoods 7. A furnace case extends downward from the middle portion of the body and is formed by sides 8, bottom 9, front 10, and back 11. Within this furnace case is supported a grate 12 and upright sides 13 of the furnace, across which sides may be placed a plate 14 provided with longitudinal slots 15 to permit the escape of heat, but this plate may be entirely omitted if desired. On the front of the case 10 are mounted the fire-door 17 and draft door 18. It will be noticed in Fig. 2 that the sides 13 of the furnace do not extend to the front 10 of the case.

Vertical rods 20 having handles 22 are mounted near the front of the furnace and to them are attached gates or dampers 21 which are adapted to close the passages between the sides 13 of the furnace and the sides 8 of the furnace case. The plate 14 also extends over the projecting front of the furnace.

Horizontal rods 24, having handles 25 at their front ends, are mounted in the front 5 and back 3 of the body, and to them are secured the distributors which are shown in Fig. 4 and which have vanes 26 and 27.

Vertically projecting upward from the bottom 1 of the body are plates 29, 30 and 31

The tank 32 is of any desirable size and construction and may be provided with a cover 33 if desired.

Any desirable legs or supports may be employed to support this device.

The operation of this cooker is as follows: The tank being in place, a fire is started in the furnace the dampers 21 being positioned to leave open the passages between the sides 13 of the furnace and the sides 8 of the furnace case. The distributors are so placed that the vanes 26 will be vertical. The production of combustion will then pass forward from the furnace around the side walls 13, into the space between the walls 13 of the furnace and the sides 8 of the furnace case, and then upward, passing through the openings 35 in the distributors and directly to the flues 6. After the fire is well under way, the distributors are turned so that the vanes 27 will be vertical, when the hot products of combustion will pass through the openings 36. The openings 36 nearest the front of the furnace are made smaller so that the hottest gases which pass through these front openings will not be so great in amount as the somewhat cooler gases that pass through the openings at the rear ends of these distributors. As will be seen in Fig. 4 the openings increase in size toward the rear. Plates 29, 30 and 31 conduct the gases in straight lines along the bottom of the tank and their lengths are such that the hot gases will have easy lines of travel to the flues 6.

In case it is desired to limit the heating area of the cooker, one of the gates 21 may be swung across the passage between the furnace and case as shown in the left of Fig. 2, when the gases will all travel toward the other side, their passage to the one side being cut off by the gate 21. As the grate 12 need not extend to the front of the furnace the fire may be confined to the middle part of the furnace.

Many changes may be made in the details of this construction without departing from the spirit of my invention.

Having now explained my improvements, what I claim as my invention and desire to secure by Letters Patent is:—

1. In a feed cooker, the combination of a flat body having a bottom, sides and ends, flues connected to said ends and extending upward, a furnace case extending downward from said bottom, a furnace within said case,



revoluble distributors horizontally mounted adjacent to said furnace and formed of apertured plates at right angles to each other, and longitudinally extending vertical plates  
5 extending upward from the bottom of said body.

2. In a feed cooker, the combination of a shallow body having a bottom, sides and ends, upwardly extending flues connected to  
10 the ends, a furnace case extending down from said bottom, a furnace in said case having sides parallel to the sides of said case, the front ends of said furnace sides ending a distance from the front of the case, dampers  
15 adapted to close the space between the ends of the furnace sides and the case, distributors horizontally mounted above the bottom of the body and adjacent to the furnace, said

distributors having openings increasing in size from the front of the cooker. 20

3. In a feed cooker, the combination of a shallow body having a bottom, sides and ends, upwardly extending flues connected to the ends, a furnace extending downward from said bottom, and distributors horizon- 25 tally mounted above the bottom and adjacent the furnace and having openings increasing in size from the front of the furnace.

In testimony whereof, I have signed this specification in the presence of two subscrib- 30 ing witnesses.

LORENZO DOW DEWEY, 2D.

Witnesses:

HOMER D. MACDONALD,  
FLORA ULRICH.